AMENDMENTS TO THE CLAIMS

1) **(Currently amended)** ~~Coupling~~ A coupling process between a peptide compound with ~~and~~ at least one non-peptide compound comprising reacting in solution said peptide and said at least one non-peptide compound to produce a hydrazide link between said peptide and said at least one non-peptide compound and thereby obtain a modified peptide, wherein said non-peptide compound comprises at least one functional group selected from the group consisting of a carboxylic acid group and an alcohol group.~~compound A, of a non-peptidic nature, bearing a function selected from the group constituted by the carboxylic acid functions and the alcohol functions, characterized in that said coupling includes a step of producing, in solution, a hydrazide link between said peptide and said compound A~~

2) **(Currently amended)** ~~Coupling process according to~~ The process of claim 1, wherein the functional group of said non-peptide compound, prior to reacting with said peptide compound in a solution having a pH of less than 6, is activated with an activation agent that forms (a) an ester group when said functional group is a carboxylic acid group or (b) a carbonate group when said functional group is an alcohol group, and wherein said peptide compound comprises a hydrazine group or a α-hydrazinoacetic group.

~~characterized in that it includes, for producing said hydrazide link, the following steps:~~

~~a) activation of the function borne by said compound A into a corresponding reactive function, selected respectively from the group formed by the ester functions and the carbonate functions, when compound A bears, respectively, a carboxylic acid function and an alcohol function; and~~

~~b) reaction, in solution and at a pH of less than 6, between said compound A activated obtained in a) and a peptide, that is completely deprotected, bearing at least one hydrazine or hydrazine derivative group, either at its N-terminal end or at the end of the side chain of a lysine or of an ornithin possibly present at some point in the peptide sequence.~~

3) **(Currently Amended)** ~~Process according to~~ The process of claim 2, ~~characterized in that it further includes a step c) of purification of the modified peptide obtained in step b)~~further comprising a step of purifying said modified peptide compound.

4) **(Currently amended)** ~~Process according to~~The process of claim 2 or claim 3, wherein said activated functional group is at least one member selected from the group consisting of succinimidyl esters, sulfosuccinimidyl esters, aryl esters, succinimidyl carbonate, sulfosuccinimidyl carbonate, and aryl carbonate.~~characterized in that, after step a) of activation of the function borne by compound A, the corresponding reactive function borne by compound A is selected from the group constituted by succinimidyl, sulfosuccinimidyl and aryl esters and carbonates.~~

5) **(Currently amended)** ~~Process according to~~ The process of claim 2, ~~characterized by the fact that~~ wherein said peptide compound comprises ~~hydrazine derivative group borne by the peptide is~~ an α-hydrazinoacetic group.

6) **(Currently amended)** ~~Process according to~~ The process of claim 5, ~~characterized in that, prior to step b), said peptide is functionalized by an~~ wherein said α-hydrazinoacetic group~~, either at its~~ is linked to the N-terminal end of said peptide compound, or to the end of a lysine side chain of said peptide compound or to the end of an ornithine side chain of said peptide compound with N,N'-tri(Boc)hydrazinoacetic acid or of N,N'-di(Boc)hydrazinoacetic acid.~~or at the end of the side chain of a lysine or of an ornithin possibly present at some point in the peptide sequence, with the help of N,N'-tri(Boc)hydrazinoacetic acid or of N,N'-di(Boc)hydrazinoacetic acid.~~

7) **(Currently amended)** ~~Process according to~~ The process of claim 6, ~~characterized in that~~wherein said peptide compound is purified prior to reacting it with said non-peptide compound.

8) **(Currently amended)** ~~Process according to~~ The process of claim 1, ~~characterized in that~~ wherein said non-peptide compound ~~A~~ is at least one member selected from the group consisting of~~constituted by~~ a lipids, a sugars, an alcohols and a fluorescence markers.

9) **(Currently amended)** ~~Process according to~~ The process of claim 8, ~~characterized in that~~ wherein said lipid ~~s are~~ is at least one member selected from the group consisting of ~~constituted by~~ a saturated fatty acids~~,~~ an unsaturated fatty acids and a sterols~~.~~

10) **(Currently amended)** ~~Process according to~~ The process of claim 9, ~~characterized in that~~ wherein said lipids ~~are~~ is selected from the group consisting of ~~constituted by~~ palmitic acid, stearic acid, cis-9,10-epoxystearic acid, oleic acid, linoleic acid and cholesterol.

11) **(Withdrawn)** Modified peptide, characterized in that it is essentially constituted by a peptide linked, by a hydrazide link, to at least one compound A selected from the group constituted by lipids, sugars, alcohols and fluorescence markers.

12) **(Withdrawn)** Modified peptide according to claim 11, characterized in that it is an oligopeptide essentially constituted by a peptide linked, by a hydrazide link, to at least one lipid selected from the group constituted by saturated fatty acids, unsaturated fatty acids and sterols.

13) **(Withdrawn)** Modified peptide according to claim 12, characterized in that it is an oligopeptide essentially constituted by a peptide linked, by a hydrazide link, to at least one lipid selected from the group constituted by palmitic acid, stearic acid, cis-9,10-epoxystearic acid, oleic acid, linoleic acid and cholesterol.

14) **(Withdrawn)** Synthetic vaccine, characterized in that it includes at least one modified peptide according to any one of claims 11 to 13.

15) **(Withdrawn)** Diagnosis reagent, characterized in that it includes at least one modified peptide according to any one of claims 11 to 13.

16) (**Withdrawn**) Use of the residue of the process according to claim 1 for the preparation of a medicament including an active principal of a vectorized peptidic nature, useful for cell targeting.

17) (**Canceled**)

18) (**Canceled**)

19) (**Withdrawn**) A method for cell targeting a peptide which comprises administering to a host a modified peptide prepared by the process according to claim 1 for the preparation of a medicament including an active principal of a vectorized peptidic nature, useful for cell targeting.

20) (**Withdrawn**) A method for cell targeting a peptide which comprises administering to a host a modified peptide according to claim 11.

21) (**New**) The process of claim 7, wherein said peptide compound is purified by high-performance liquid chromatography.

22) (**New**) The process of claim 21, wherein said peptide compound is eluted from the high-performance liquid chromatography column with a mixture of water and alcohol, including trifluoroacetic acid.

23) (**New**) The process of claim 22, wherein said peptide compound is eluted from the high-performance liquid chromatography column with a mixture of water and isopropanol, including trifluoroacetic acid.